

Abstract of the Disclosure

IMPROVING THE ADHESION BETWEEN RUBBER COMPONENTS

5       The process of this invention can be utilized to  
improve the adhesion between rubber components. It is  
generally most useful for improving the adhesion  
between two different pre-cured rubber components or  
for improving the adhesion between a pre-cured rubber  
10      component and an uncured (green) rubber component.  
However, the technique of this invention can also be  
employed to improve the adhesion between two uncured  
rubber components. The technique of this invention is  
based upon the unexpected discovery that low molecular  
15      weight trans-1,4-polybutadiene containing rubber  
compounds can be used to improve the adhesion between  
rubber components. This invention more specifically  
reveals a technique for improving the adhesion between  
a first rubber component and a second rubber component  
20      in a process for manufacturing a cured rubber article,  
said technique comprising the steps of: (1)  
positioning a layer of an adhesion-promoting rubber  
composition which is comprised of a low molecular  
weight trans-1,4-polybutadiene rubber between the  
25      first rubber component and the second rubber  
component, (2) bringing the first rubber component  
into contact with one side of the layer of adhesion-  
promoting rubber composition and bringing the second  
rubber composition into contact with the other side of  
30      the layer of adhesion-promoting rubber composition and  
(3) curing the first rubber composition, the second  
rubber composition and the adhesion-promoting rubber  
composition together under conditions of heat and  
pressure to produce the cured rubber article.